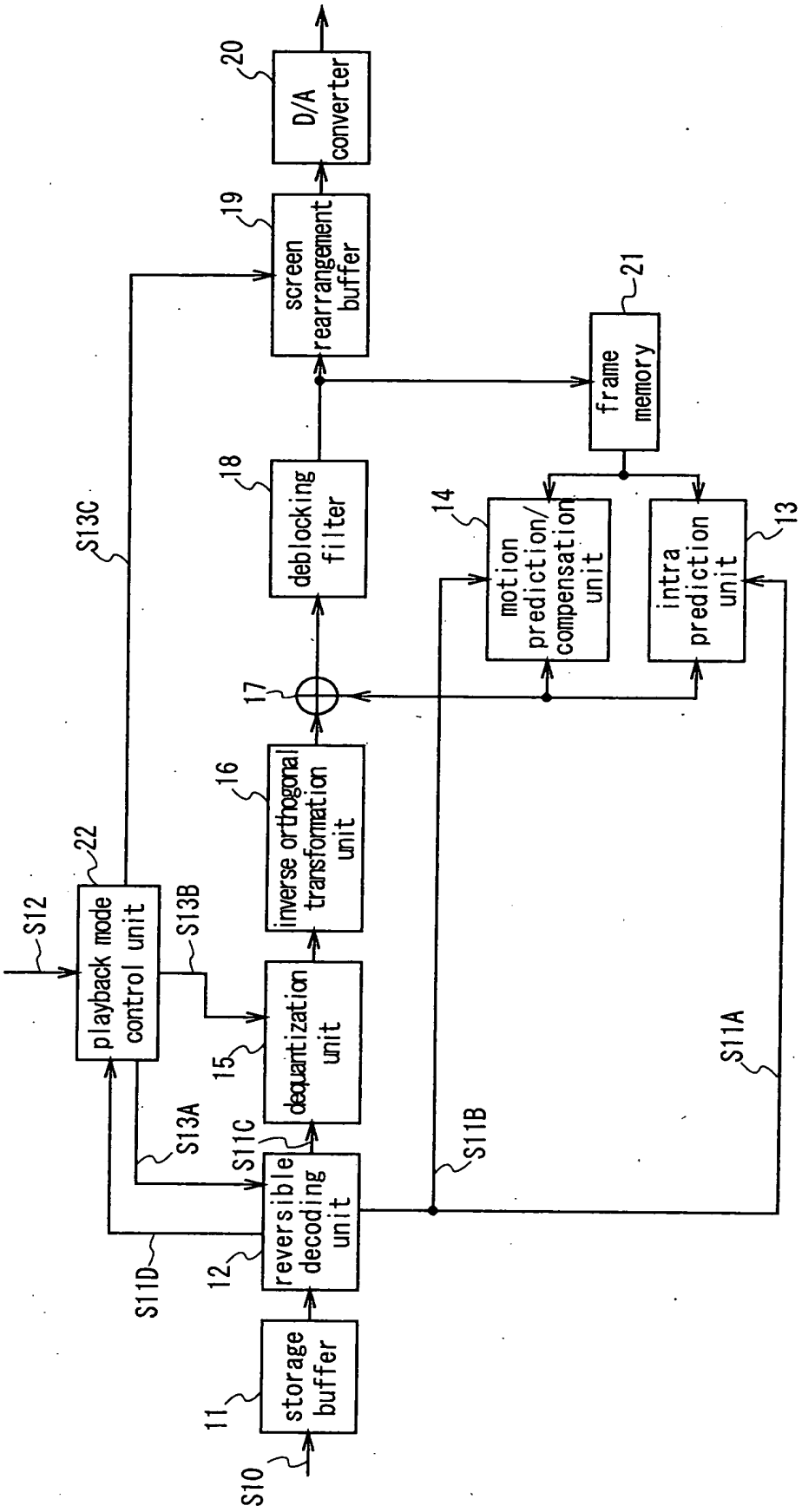
10
S10
11
storage buffer
12
reversible decoding unit
S11A
S11B
S11C
S11D
13
intra prediction unit
14
motion prediction/ compensation unit
15
dequantization unit
16
inverse orthogonal transformation unit
17
18
deblocking filter
19
screen rearrangement buffer
20
D/A converter
21
frame memory
22
playback mode control unit
S12
S13A
S13B
S13C

FIG. 1

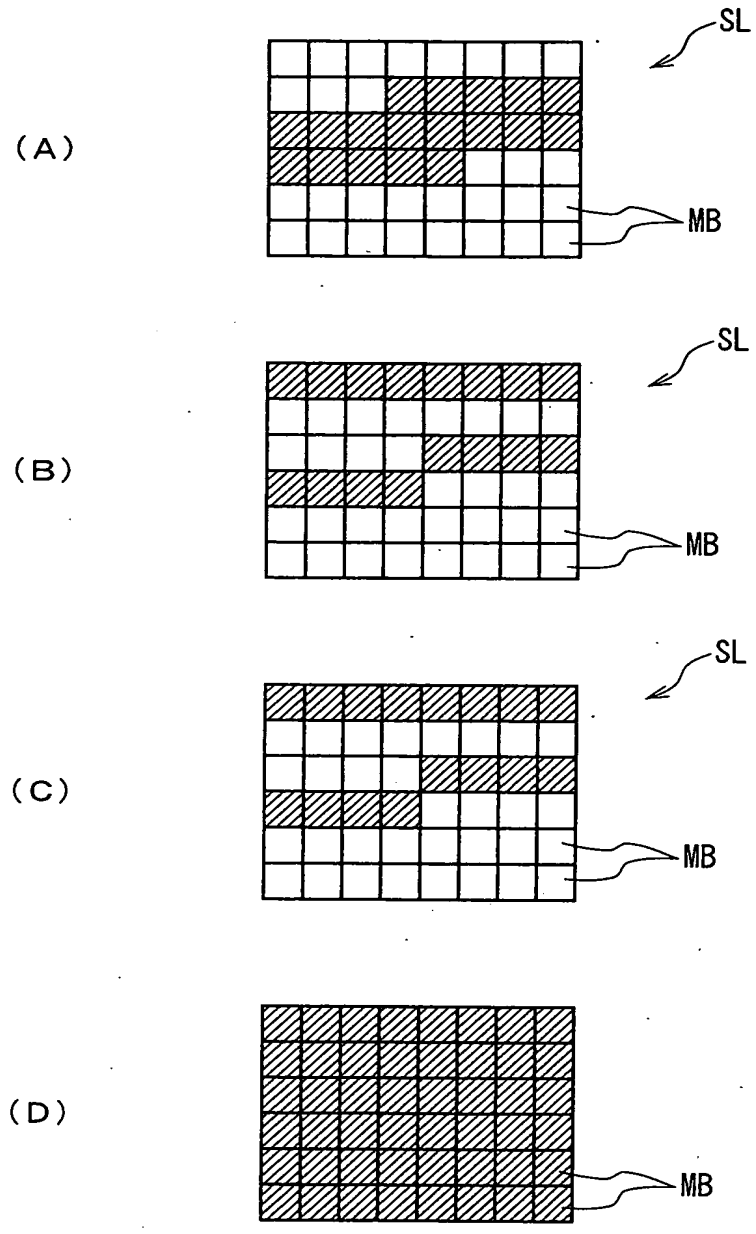

FIG. 2

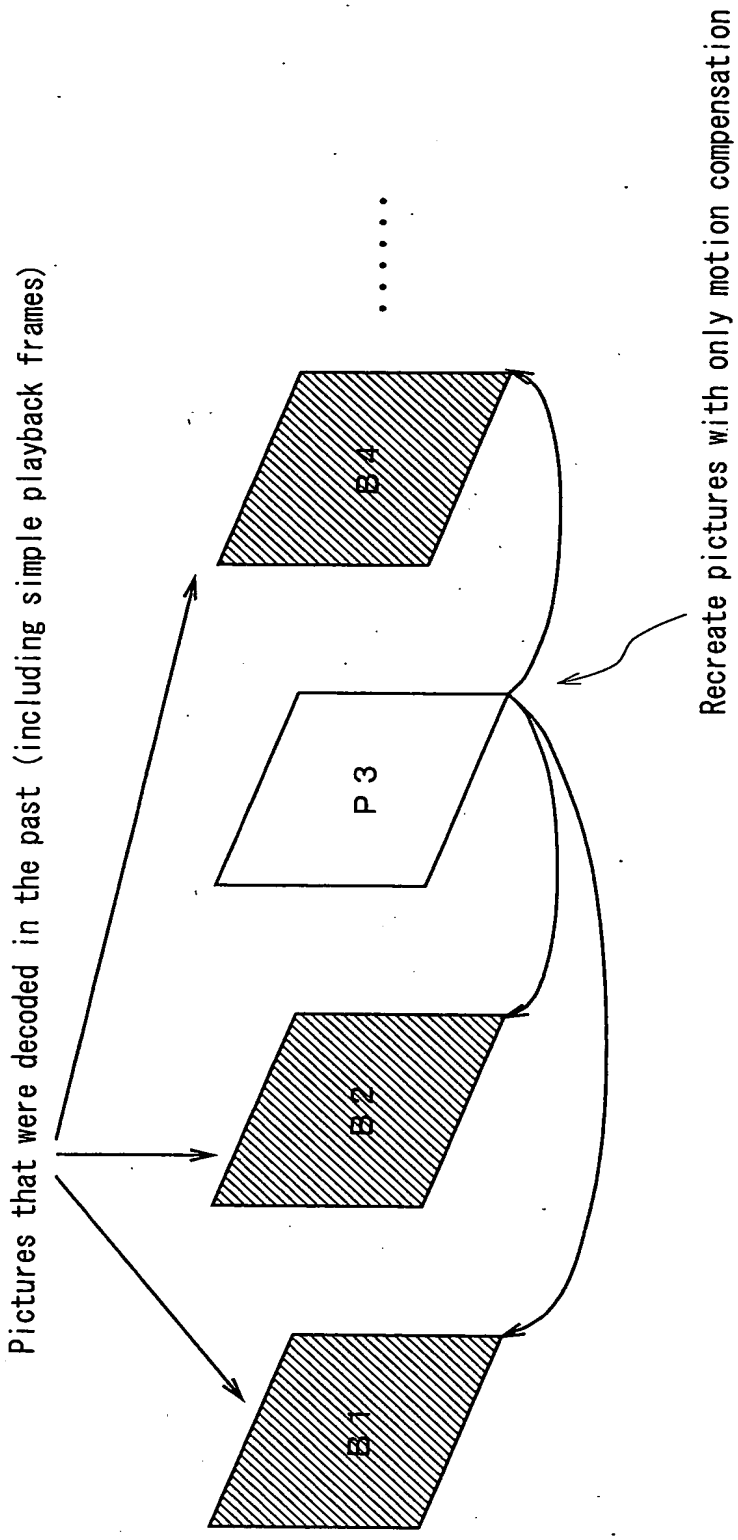
Pictures that were decoded in the past (including simple playback frames)
B4
P3
B2
B1
Recreate pictures with only motion compensation

FIG.3

0	1	4	5
2	3	6	7
8	9	12	13
10	11	14	15

FIG. 4

M	A	B	C	D	E	F	G	H
I	a	b	c	d				
J	e	f	g	h				
K	i	j	k	l				
L	m	n	o	p				

FIG. 5

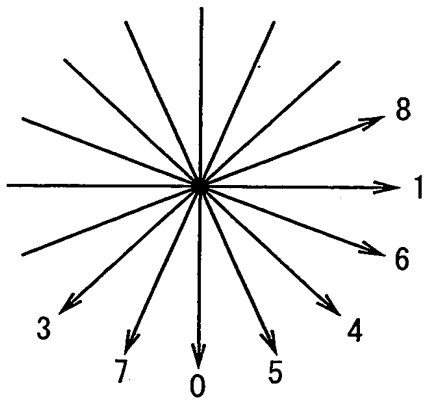

FIG. 7

Intra4×4LumaPredMode[4×4LumaBlkIdx]	Name of Intra4×4LumaPredMode[4×4LumaBlkIdx]
0	Intra4×4Vertical (prediction mode)
1	Intra4×4Horizontal (prediction mode)
2	Intra4×4DC (prediction mode)
3	Intra4×4Diagonal Down Left (prediction mode)
4	Intra4×4Diagonal Down Right (prediction mode)
5	Intra4×4Vertical Right (prediction mode)
6	Intra4×4Horizontal Down (prediction mode)
7	Intra4×4Vertical Left (prediction mode)
8	Intra4×4Horizonal Up (prediction mode)

FIG. 6

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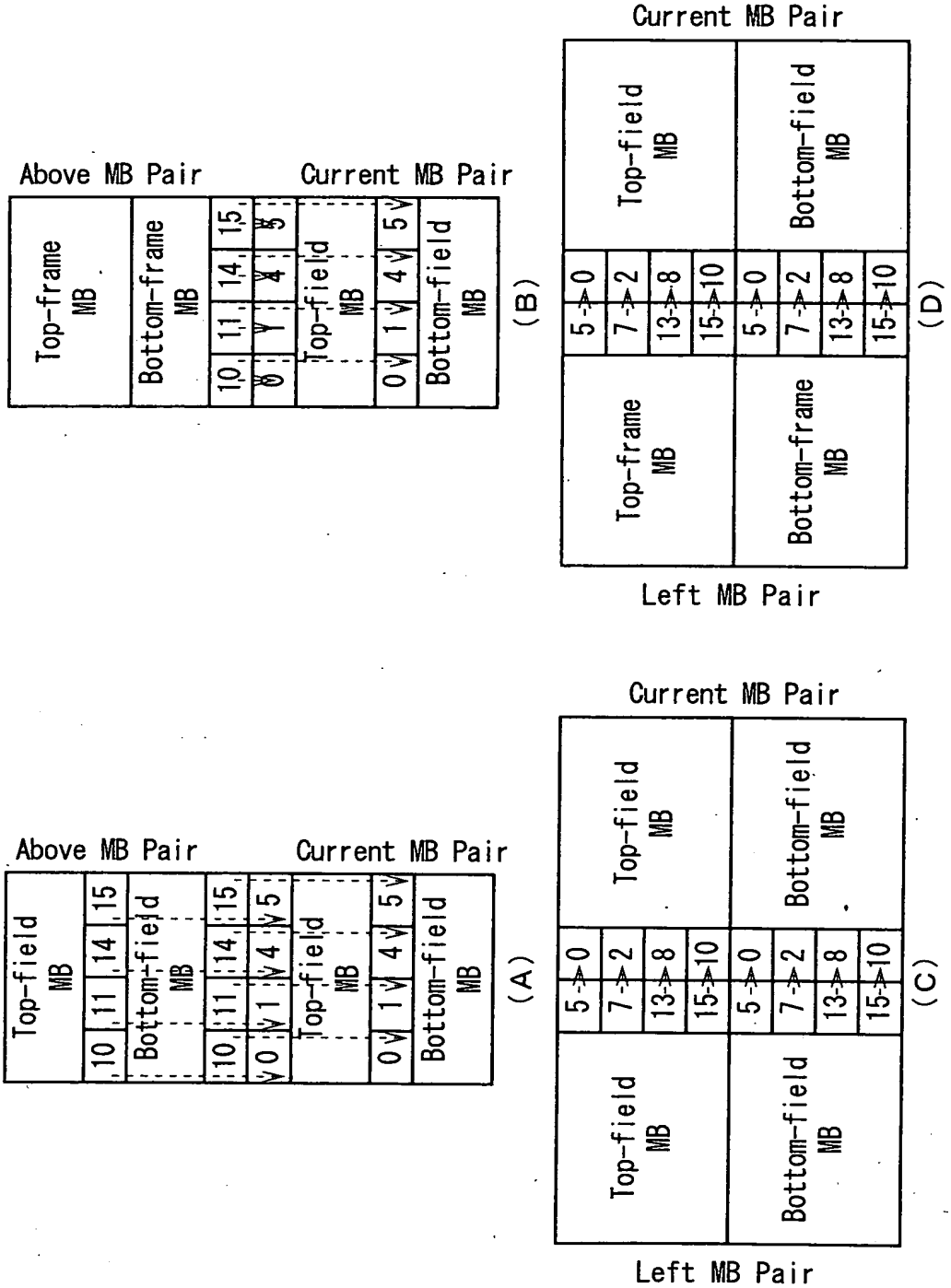
Above MB Pair
Current MB Pair
Top-frame MB
Bottom-frame MB
Top-field MB
Bottom-field MB
10
11
14
15
0
1
4
5
(B)
Current MB Pair
Top-field MB
Bottom-field MB
Top-frame MB
Bottom-frame MB
5->0
7->2
13->8
15->10
(D)
Left MB Pair
Above MB Pair
Current MB Pair
Top-field MB
Bottom-field MB
10
11
14
15
0
1
4
5
(A)
Current MB Pair
Top-field MB
Bottom-field MB
Top-field MB
Bottom-field MB
5->0
7->2
13->8
15->10
(C)
Left MB Pair

FIG.8

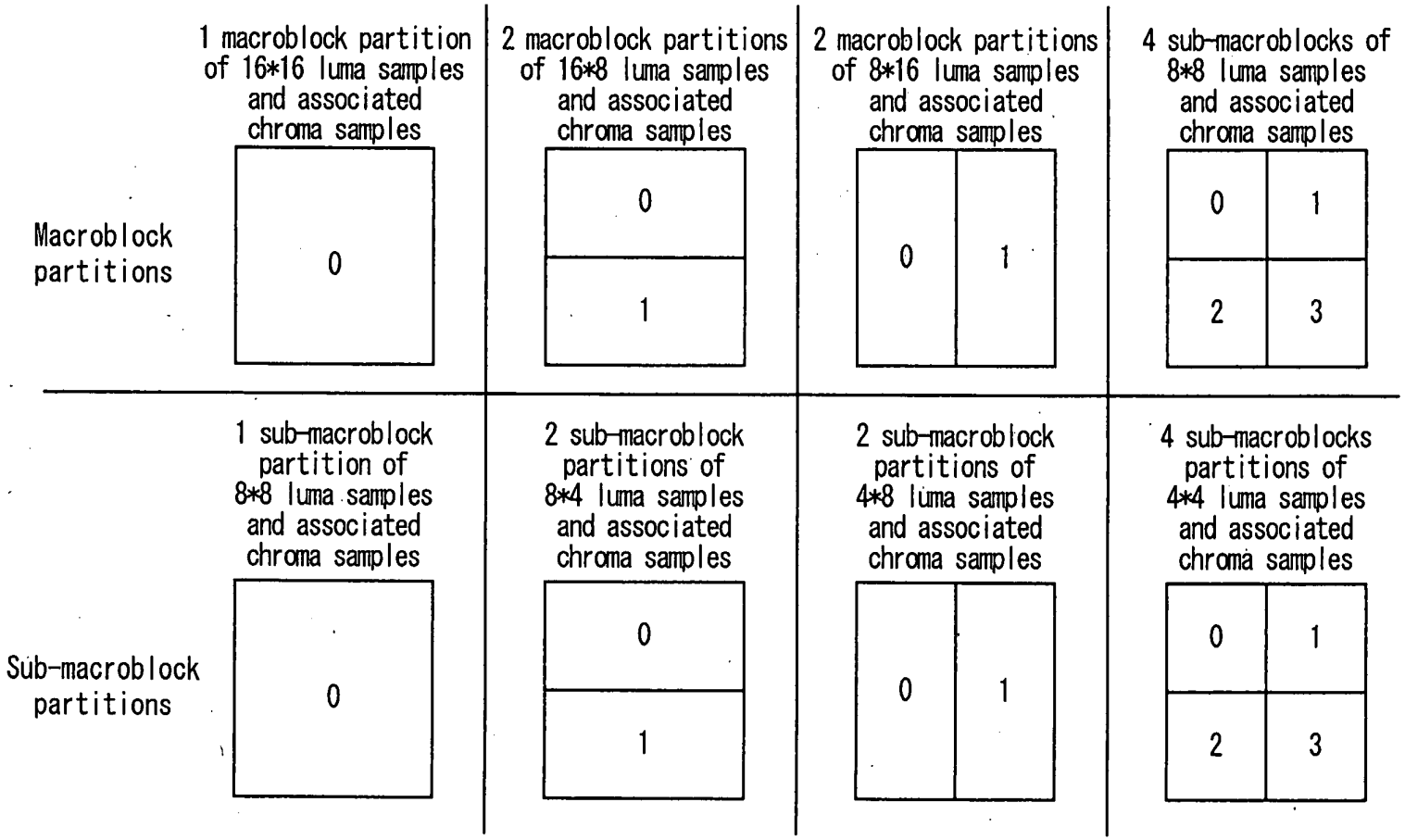

FIG. 9

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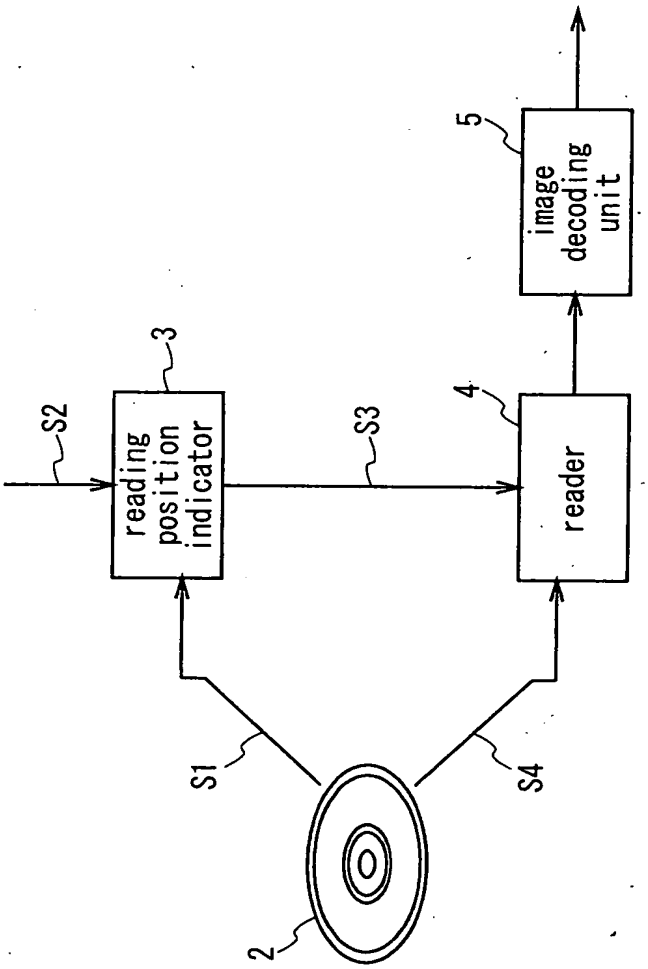
1 image reproduction apparatus
2
S1
S2
S3
S4
3
reading position indicator
4
reader
5
image decoding unit

FIG. 10

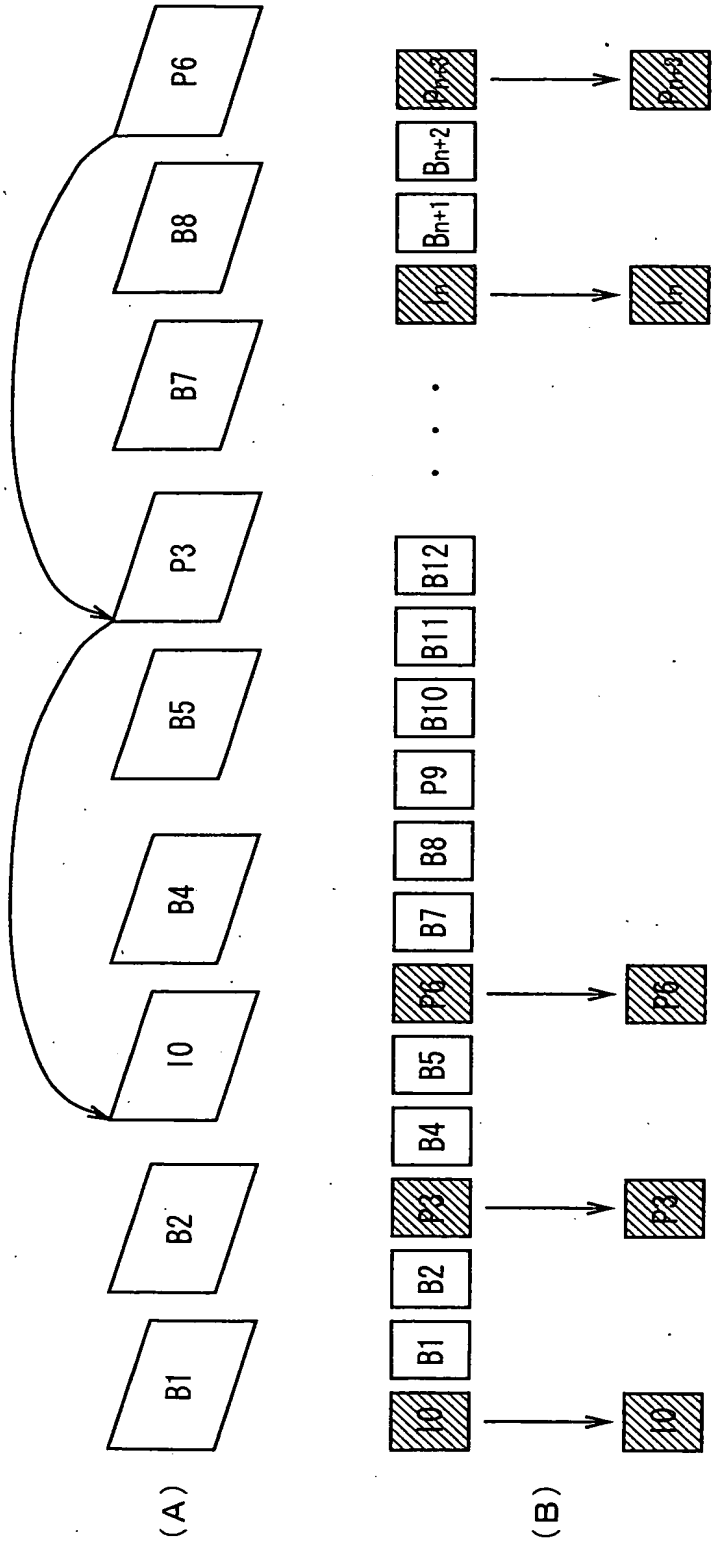
P6
B8
B7
P3
B5
B4
I0
B2
B1
(A)
In
Bn+1
Bn+2
Pn+3
B12
B11
B10
P9
B8
B7
P6
B5
B4
P3
B2
B1
I0
P6
P3
I0
In
Pn+3
(B)

FIG. 11

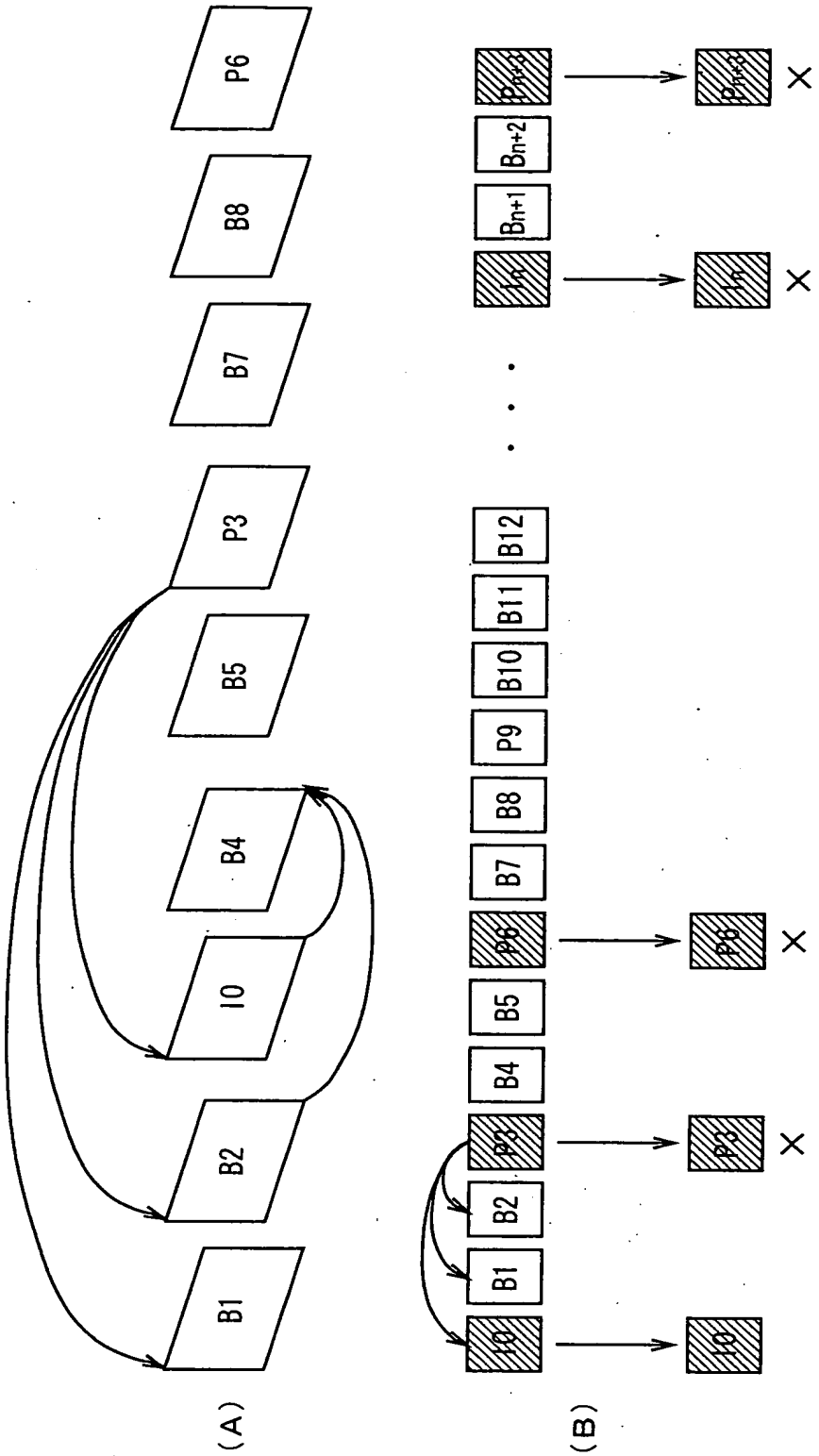
P6
B8
B7
P3
B5
B4
I0
B2
B1
(A)
Bn+3
Bn+2
Bn+1
In
B12
B11
B10
P9
B8
B7
P6
B5
B4
P3
B2
B1
I0
(B)

FIG. 12

Description of reference numerals

10...image decoding apparatus, 12...reversible decoding unit, 13...intra prediction unit, 14...motion prediction/compensation unit, 15...dequantization unit, 16...inverse orthogonal transformation unit, 17...adder, 18...deblocking filter, 19...screen rearrangement buffer, 21...frame memory, 22...playback mode control unit